BOHLER S EMK 6

GTAW rod, unalloyed

Classification	
AWS A5.18	**EN ISO 636-A**
ER70S-6	W 42 5 W3Si1

Characteristics and typical fields of application

A copper coated, manganese-silicon alloyed GTAW wire of all general engineering and structural steels fabrication with minimum yield strength of max 400 MPa. High levels of silicon and manganese for use on slightly contaminated base materials. Contains more deoxidizers than ER70S-3. The additional deoxidizers also provide better wetting, giving a flatter bead shape and the capability of faster travel speeds. The welding rod is suitable for joint welding in the construction of Small diameter pipe and tubing, process piping, boilers, containers and offshore structures.

Base Materials

Steels up to a yield strength of 420 MPa (60 ksi)
S235JR-S355JR, S235JO-S355JO, S235J2-S355J2, S275N-S420N, S275M-S420M, S275NLS420NL, S275ML-S420ML, P235GH-P355GH, P275NL1-P355NL1, P275NL2-P355NL2, P215NL, P265NL, P355N, P285NH-P420NH, P195TR1-P265TR1, P195TR2-P265TR2, P195GH-P265GH, L245NB-L415NB, L245MB-L415MB, GE200-GE240
ASTM A 106 Gr. A, B, C; A 181 Gr. 60, 70; A 283 Gr. A, C; A 285 Gr. A, B, C; A 350 Gr. LF1, LF2; A 414 Gr. A, B, C, D, E, F, G; A 501 Gr. B; A 513 Gr. 1018; A 516 Gr. 55, 60, 65, 70; A 573 Gr. 58, 65, 70; A 588 Gr. A, B; A 633 Gr. A, C, D, E; A 662 Gr. A, B, C; A 707 Gr. L1, L2, L3; A 711 Gr. 1013; A 841 Gr. A, B, C; API 5 L Gr. B, X42, X52, X56, X60

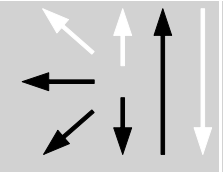
Typical analysis of solid wire (wt.- %)

C	Si	Mn	P	S
0.07	0.85	1.48	$\leq$ 0.020	$\leq$ 0.015

Mechanical properties of all-weld metal

Heat treatment	Yield strength R_e N/mm²	Tensile strength R_m N/mm²	Elongation (L_0=4d_0)	Impact work ISO-V KV J	Impact work ISO-V KV J
	MPa	MPa	%	–40 °C	–50 °C
As Welded	430	550	40	100	90
620°C/2 h	400	510	28	110	100

Operating data



Polarity
DCEN

Shielding Gas : Argon

Approval

ABS

Size mm	Kg / Plastic tube	Amperage
1.60	5.0	50 – 110
2.00	5.0	60 – 130
2.40	5.0	80 – 150
3.20	5.0	120 – 210